Western Electric Company, Inc., Engineering Department, New York.

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## METHOD OF OPERATION TEST SET CIRCUIT

For Routine Testing of District Selectors - Full Mechanical Power Driven System.

## GENERAL DESCRIPTION

- l. This circuit is used for testing district selectors. It is provided with a dial so that the districts may be run to any desired bank and group in that bank, to enable the tester to observe its operation, when making mechanical or electrical adjustment.
- 2. A monitoring key is provided to enable the tester to listen in on busy connections. An adjustment key is provided to permit patching a relay adjusting test set through this circuit for adjusting supervisory relays. Two relays, a key and a lamp are provided, for giving the condition of a coin station, in order to pass the coin district through the coin collect and return position. The circuit is provided with a retard coil, to close a loop for holding the district, when the plug of an operator's set is not inserted in the jack of the test set.

## DETAILED DESCRIPTION

- 3. Jack RAT is patched to the relay adjusting test box when adjusting supervisory relays. Jack TST is patched to the district under test, and jack B is patched to a jack of the jack box to provide 48 volt battery for operating the district.
- 4. To start the district functioning, the M-D key is operated, connecting ground through 100 ohms to the sleeve lead which operates the SL relay in the district. The release of the MD key allows the coin district to move to coin selection, when the sleeve relay is held operated by ground on the make contact of the (C-1) relay. With the RAT key normal, and the district jacks patched to their respective jacks, the operator dials the number of the bank and group to be tested. When this group has been selected, the coin key is operated, operating and locking the (O-1) relay to ground on the break contact of the C relay. The operation of the (C-1) relay, lights the coin lamp, connects ground through the make contact to the C relay, to the tip of the line, and connects ground through 100 ohms to the sleeve of jack TST.
- 5. When coin battery is supplied to the line by the district for collecting or refunding the coin, the C relay operates, releasing the (C-1) relay. When the coin battery is removed the circuit is opened momentarily, during which the C relay releases, removing the ground from the tip side of the line. The COIN lamp lights during the time interval corresponding to the time the coin is in the slot under actual conditions.
- 6. To make a test on a line finder district, it is necessary to insert a make busy plug in the test jack, and to patch jack TST of this circuit to the jack associated with the test line of that particular group.

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## CIRCUIT REQUIREMENTS

	OPERATE	NON-OPERATE	RELEASE
E597 (C-1)	Test .030 amp. Readj018 amp.		Test .001 amp. Readj002 amp.
H30 (C)	Test .079 amp. Readj062 amp.	Test .039 amp. Readj041 amp.	